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Texas Emissions Reduction Plan:

Report to the 78th Texas Legislature

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Strategic Assessment Division

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Texas Emissions Reduction Plan:

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Prepared by
Strategic Assessment Division

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Executive Summary

Texas Emissions Reduction Plan

The Texas Commission on Environmental Quality (TCEQ), formerly the Texas Natural Resource Conservation Commission (TNRCC), is pleased to provide this report in fulfillment of the requirements of Section 386.057, Texas Health and Safety Code.

The Texas Emissions Reduction Plan (TERP) was established by the 77th Texas Legislature in 2001, through enactment of Senate Bill (SB) 5. The goals of the TERP, as set forth in SB 5, are to:

- ensure that the air in this state is safe to breathe and meets minimum federal standards established under the federal Clean Air Act (Section 7407, Tile 42, United States Code);
- develop multipollutant approaches to solving the state's environmental problems; and
- adequately fund research and development that will make the state a leader in new technologies that can solve the state's environmental problems while creating new business and industry in the state.

In addition to these general goals, a primary purpose of the TERP is to reduce emissions of oxides of nitrogen (NO_x) through voluntary incentive programs. These reductions are intended to replace reductions that would have been achieved through two mandatory measures that SB 5 directed the TCEQ to remove from the State Implementation Plan (SIP) for the Dallas-Fort Worth (DFW) and Houston-Galveston (HGA) ozone nonattainment areas. Those reductions totaled 35.2 tons per day (tpd), to be achieved in 2007.

The two strategies that were removed from the SIP were:

- a limit on the use of construction and industrial equipment during the 6 a.m. to noon time period in the HGA area and 6 a.m. to 10 a.m. time period in the DFW area; and
- a requirement that the owners and operators of diesel-powered equipment — construction, industrial, commercial, and lawn-and-garden equipment 50 hp and above — replace it with new lower emission equipment (Tier 2 and Tier 3) within certain designated deadlines.

TERP incentives were also intended to achieve up to an additional 20 tpd of NO_x reductions, out of 56 tpd of reductions remaining to be identified in the SIP for the HGA area.

In addition, incentive funding was expected to be available to help achieve reductions in counties located in the other two nonattainment areas (Beaumont-Port Arthur and El Paso County) and in near-nonattainment areas, where air quality is approaching nonattainment levels.

Programs

To accomplish the goals of the TERP, SB 5 established a number of new programs, to be funded from new revenue sources and administered by state agencies. These new programs include:

- **Emissions Reduction Incentive Grants Program**. Grants for projects in 38 counties (affected counties) located in the air quality nonattainment and near-nonattainment areas, for incremental costs associated with new engines, repowers, retrofit technologies, fuels, infrastructure, and demonstration of new technologies.
- **Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program**. Rebates on the purchase or lease of cleaner heavy-duty (10,000 lb or greater) vehicles.
- **Light-Duty Motor Vehicle Purchase or Lease Incentive Program**. Rebates on the purchase or lease of cleaner cars and light trucks.
- **Energy Efficiency Grants Program**. Grants to electric companies to reduce electricity consumption and air emissions in affected counties.
- **New Technology Research and Development Program**. Grants to support development of emissions-reducing technologies.
- **Texas Building Energy Performance Standards**. Adoption of the International Energy Conservation Code and the energy efficiency chapter of the International Residential Code.
- **Energy Efficiency Programs in Certain Political Subdivisions**. Energy efficiency measures by local political subdivisions in affected counties to reduce electricity consumption by 5 percent each year for five years.

Funding

Funding for the new programs is provided by new fees and surcharges, including:

- Surcharge of 1 percent on the retail sale, lease, or rental of new or used construction equipment.
  - — The original revenue estimates for this surcharge included collections based on both the sales tax transactions for this equipment and the user tax that is collected on equipment that is purchased out-of-state for use within the state. However, based on the final interpretation of the statutory language by the Comptroller of Public Accounts (Comptroller), the surcharge has only been collected based on the sales tax transactions and not on the user taxes.
- Surcharge of 2.5 percent on the retail sale or lease of pre-1997 on-road diesel motor vehicles over 14,000 lb.
- Surcharge of 10 percent of total fees on the registration of truck-tractor and commercial motor vehicles.
- Fee of $10 on the inspection of commercial motor vehicles.
- Fee of $225 for the inspection of an out-of-state vehicle, for purposes of being registered in Texas.
  - — Motions for summary judgement against this fee were filed and the court found that the plaintiffs were entitled to judgement as a matter of law because the fee violates the Commerce Clause and the Equal Protection Clause of the United States Constitution *[H. M. Dodd Motor Co. Inc. v. Tex. Dep't of Public Safety, No. GN102585 (200th Dist. Ct., Travis County, Tex., Apr. 12, 2002)]*. As a result, no revenues were collected from this fee.

As a result of the Court's decision on the out-of-state vehicle inspection fee, as well as the reduced revenue collections for the construction equipment surcharge, the revenue received for FY 2002 was $20.5 million, down from the $137 million that was originally expected to be received. The allocation of the revenue received, including funds for administrative expenses, was as follows:

• Texas Commission on Environmental Quality	$14,041,021
• Public Utility Commission	$1,580,721
• Comptroller of Public Accounts	$3,224,416
• Energy Systems Laboratory	$181,854
• Texas Council on Environmental Technology	$1,503,495

Status and Results to Date

This report includes summary information on the status of initiatives to implement the TERP and the effectiveness of those programs in achieving the goals of the TERP. As explained in the report, it is too early to have measurable results from many of the programs, but some preliminary results are presented below.

Emissions Reduction Incentive Grants Program. The TCEQ has adopted rules and guidelines and has implemented the program, with 43 grant projects selected to date, for a total of $13,558,711. These projects will result in a reduction in NO_x emissions of 2,515.77 tons over the life of the projects, or 1.31 tons per day in 2007, and at a cost per ton of $5,389.

Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program. The TCEQ has adopted rules and guidelines, but due to the reduced revenue, the TCEQ has used available funds for the grants program.

Light-Duty Motor Vehicle Purchase or Lease Incentive Program. The Comptroller and the TCEQ have established rules and guidelines for the program. The Comptroller has developed forms, brochures, a toll-free number, and a Web site to notify the public. As of September 24, 2002, the fund balance for this program was $2,254,117. One application had been received as of September 24, 2002, but as provided for in Section 386.161(b), Texas Health and Safety Code, payments have been suspended until the balance available in the fund is adequate to begin providing incentives. A list of eligible vehicles is now available, and a required manufacturers brochure and vehicle registration insert have been developed and are being used. Also, the TCEQ has completed a school logo contest to develop an insignia to go on vehicles eligible for this program.

Energy Efficiency Grants Program. The Public Utility Commission of Texas (PUC) selected two grants for funding: $200,000 for a load management program from Reliant in the Houston-Galveston nonattainment area; and $67,950 for a commercial lighting program from Entergy in the Beaumont-Port Arthur nonattainment area. The projected energy savings over the 10-year project life of the Entergy project total 13,000 megawatt-hours (MWh) beginning in 2003. Energy savings for the Reliant project are still to be determined, although this project resulted in a peak load reduction of 2.12 megawatts (MW) in 2002.

In addition to the grants program, the PUC is responsible for reporting to the TCEQ on the results of energy efficiency programs implemented under SB 7, enacted by the 76th Legislature in 1999. These programs are funded by the utilities through the rates and fees charged. The PUC reports that the projected energy savings from nine SB 7 programs include 246,224 MWh per year, or 2,462,240 MWh over the 10-year project life. The cost of these programs totals $43,856,823.

The U.S. Environmental Protection Agency's (EPA) Office of Atmospheric Programs, in coordination with the TCEQ, the Electric Reliability Council of Texas (ERCOT), and the PUC, has developed a methodology for quantifying the potential reductions resulting from energy savings due to energy efficiency measures. While this is a good first step in attempting to quantify the potential reductions associated with energy efficiency, there is still a lot of work that needs to be done to refine the methodology to allow for the reductions to be creditable in the SIP.

One difficulty with conducting this analysis is that reductions in energy consumption by users located in a certain geographic area may not result in corresponding reductions in emissions from energy generators in that same area. This is particularly the case with deregulation of energy services, when the electricity consumed in one area may be generated from multiple sources located in several geographic areas.

New Technology Research and Development Program. The new Texas Council of Environmental Technology (TCET) has selected 11 proposals for funding, of which four proposals (totaling $825,000) are under contract initiation, and the remaining seven proposals are pending receipt of additional revenue.

Texas Building Performance Standards. The Energy Systems Laboratory (ESL), which is part of the Texas A&M University System, has developed information and provided workshops for implementing the standards. The ESL has developed methodologies and plans for calculating and reporting energy savings and demand reductions.

Energy Efficiency Programs in Certain Political Subdivisions. The State Energy Conservation Office (SECO) has developed forms and brochures, conducted workshops, and established a Web site to inform affected political subdivisions. Annual reports from affected political subdivisions will be due to SECO by March 1 of each year, and the first reports are due in 2003. Preliminary reports, which will be used to establish baseline information, have been submitted by 170 political subdivisions, with 100 reporting that they have established the 5 percent reduction goal required under SB 5. Of the political subdivisions reporting,

111 indicated a baseline energy usage of 4,991,435,260 kilowatt-hours (kWh). Assuming that each of these entities is successful in attaining its reduction goal, a savings of 249,571,763 kWh would be achieved in 2002 and a savings of 1,247,858,815 kWh by 2007.

Legislative Recommendations

Funding Issues

The key issue that will need to be addressed by the Legislature is the need for full funding of the TERP. Funding for the TERP will either need to be restored, or other mechanisms considered to achieve the reductions needed in the Houston-Galveston (HGA) and Dallas-Fort Worth (DFW) nonattainment areas.

A consequence of not restoring the funding, or otherwise identifying other mechanisms to achieve the emission reductions in these areas, could be the imposition of federal sanctions under the Clean Air Act. The EPA could disapprove the SIP for the DFW area and find that the SIP for the HGA area is not being implemented, as outlined in the EPA's notice of proposed changes to Title 40 of the Code of Federal Regulations, Part 52, published in the August 1, 2002, *Federal Register* (67 FR 148, pages 49895–49900). If the EPA takes these actions, the state would have up to 18 months to correct the deficiencies or the HGA and DFW areas would face federal sanctions, which may include the loss of federal highway funding.

Other Issues

Additional changes to the implementing statutes are also needed in order to make the program more effective. After reviewing the public comments received on the draft of this report and after consultation with the TERP Advisory Board, the TCEQ offers the following recommendations for consideration by the Legislature.

In addition to these recommendations, the TCEQ supports the efforts of the TCET to enhance the research, development, testing, and certification of new emissions-reducing technologies, so that those new technologies may be available for use in Texas. The TCET is to provide a separate report to the 78th Texas Legislature, and that report will address new technology issues.

Emissions Reduction Incentive Grants Program

1. Amend the eligibility requirements to give the TCEQ more flexibility in determining who may receive grant funds and how the grants are administered. For instance, there is significant interest in the TCEQ working in partnership with regional public or private entities or both to fund pre-approved emissions-reducing technologies through some type of regional approach. There is also interest in the agency partnering with similar funding programs, such as the funding program administered by the Houston-Galveston Area Council (HGAC) using federal Congestion Mitigation/Air Quality Improvement (CMAQ) funds. Each partnership arrangement would be evaluated on a case-by-case basis to determine how the TERP funds could best be used. Under the partnership approaches that might be considered, the entity partnering with the TCEQ would normally be expected to cover its administrative costs, and TERP funds would only be used for the direct costs of the emissions reduction project. However, the agency might consider funding some administrative costs, on a limited basis, if doing so would help meet the needs of the program.

2. In conjunction with the first recommendation, authorize the TCEQ to share the emissions reductions generated by a TERP-funded project, according to the percentage of the incremental costs funded under the TERP and the percentage funded under the other program. The authority to share the credits is needed in order for the agency to work jointly with other funding programs. The project would still need to meet the cost-effectiveness requirements, based on the emissions reductions applied to the TERP portion of the project.

3. Make the purchase of new heavy-duty vehicles eligible for funding under the Emissions Reduction Incentive Grants Program, as well as the Heavy-Duty Vehicle Purchase or Lease Incentive Program.

4. Authorize the TCEQ to provide grant incentives for the replacement of older model year heavy-duty vehicles and non-road equipment with "newer" (i.e., not factory new) vehicles and equipment. Include the authority for the TCEQ to establish an appropriate incentive amount.

5. Remove the percentage reduction requirements under the definition of a repower project [Section 386.101(9), Texas Health and Safety Code]. Section 386.103(f) already directs that repower and retrofit projects achieve a 30 percent reduction in NO_x. This section further authorizes the TCEQ to establish criteria for how the baseline emissions are determined and to amend the minimum percentage reduction requirements to improve the ability of the program the achieve its

goals. By removing the separate, and more specific, percentage reduction requirements from the definition of a repower project, the TCEQ will have the flexibility to set the baseline levels and percentage reduction levels for a repower project, as appropriate, to best meet the goals of the program.

6. Remove the 3 percent funding cap on infrastructure projects. In the alternative, provide that infrastructure purchases that are part of a broader repower or retrofit project will not be considered infrastructure projects and, therefore, not subject to the 3 percent cap.

7. The list of *affected* counties in the statute should include Hunt, Hood, and Henderson Counties. These counties are part of the near-nonattainment area surrounding the Dallas-Fort Worth nonattainment area. It appears that these counties were inadvertently left off of the list in the statute. The TCEQ should be given authority to periodically amend this list, to include these three counties and to address future changes to the areas identified as nonattainment or near-nonattainment. Changes to the counties designated as nonattainment can occur, for example, when the EPA adopts new standards or when air quality in certain areas improves to the extent that the area is in attainment of the standard. Giving the TCEQ the authority to periodically amend the list of affected counties will allow them to make these changes without requiring additional legislative action.

Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program

1. This program is currently limited to vehicles which have received certification of their emissions by the EPA. The statute should be changed to allow the acceptance of vehicles with engines certified by the California Air Resources Board (CARB), as well as by the EPA.

2. The Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program should clearly include all fuels, and not just diesel-fueled vehicles.

Light-Duty Motor Vehicle Purchase or Lease Incentive Program

1. The provision for allowing cars that qualify for the Light-Duty Motor Vehicle Purchase or Lease Incentive Program to operate on high-occupancy vehicle (HOV) lanes should be amended to allow for selective implementation, contingent upon the effect of the provision on compliance with federal HOV lane funding rules and requirements. This provision conflicts with federal funding requirements for HOV lanes, and could jeopardize the funding provided to some areas for HOV lane construction if the qualifying single-occupancy vehicles are allowed to operate on HOV lanes.

Texas Emissions Reduction Plan Report to the 78th Texas Legislature

Overview

The Texas Commission on Environmental Quality (TCEQ), formerly the Texas Natural Resource Conservation Commission (TNRCC), is pleased to provide this report in fulfillment of the requirements of Section 386.057, Texas Health and Safety Code.

Not later than December 1, 2002, and not later than December 1 of each subsequent second year, the TCEQ, in consultation with the Texas Emissions Reduction Plan (TERP) Advisory Board is required to publish and submit to the Legislature a biennial report on the TERP. A draft of the report was made available for public comment and public meetings to receive input on the report were held in Houston and Arlington.

Purpose

The Texas Emissions Reduction Plan (TERP) was established by the 77th Texas Legislature in 2001, through enactment of Senate Bill (SB) 5. The goals of the TERP, as set forth in SB 5, are to:

- ensure that the air in this state is safe to breathe and meets minimum federal standards established under the federal Clean Air Act (Section 7407, Title 42, United States Code);
- develop multipollutant approaches to solving the state's environmental problems; and
- adequately fund research and development that will make the state a leader in new technologies that can solve the state's environmental problems while creating new business and industry in the state.

In addition to these general goals, a primary purpose of the TERP is to reduce emissions of oxides of nitrogen (NO_x) through voluntary incentive programs. These reductions are intended to replace reductions that would have been achieved through two mandatory measures that SB 5 directed the TCEQ to remove from the State Implementation Plan (SIP) for the Dallas-Fort Worth (DFW) and Houston-Galveston (HGA) ozone nonattainment areas. Those reductions totaled 35.2 tons per day (tpd), to be achieved in 2007.

The two strategies that were removed from the SIP were:

- a limit on the use of construction and industrial equipment during the 6 a.m. to noon time period in the HGA area and 6 a.m. to 10 a.m. time period in the DFW area; and
- a requirement that the owners and operators of diesel-powered equipment — construction, industrial, commercial, and lawn-and-garden equipment 50 hp and above — replace it with new lower emission equipment (Tier 2 and Tier 3) within certain designated deadlines.

The reductions expected from these measures totaled 35.2 tons per day (tpd), to be achieved in 2007, and included the following:

- Tier 2 and 3
  DFW: 13.8 tpd
  HGA: 12.2 tpd
  Total: 26 tpd

- Construction Shift
  DFW: 2.5 tpd
  HGA: 6.7 tpd
  Total: 9.2 tpd

TERP incentives were also intended to achieve up to an additional 20 tpd of NO_x reductions, out of 56 tpd of reductions remaining to be identified in the SIP for the HGA area.

In addition, incentive funding was expected to be available to help achieve reductions in counties located in the other two nonattainment areas (Beaumont-Port Arthur and El Paso County) and in near-nonattainment areas, where air quality is approaching nonattainment levels.

This report provides information on the status of implementing the TERP and the effectiveness of the plan in fulfilling the goals established by the Legislature. This report also provides recommendations for improving the effectiveness of the plan.

Texas Emissions Reduction Plan Advisory Board

The TERP Advisory Board is a 15-member body created under SB 5. Five members each are appointed by the Governor, Lieutenant Governor, and Speaker of the House of Representatives. The Board also includes 7 ex-officio members. A list of members is included in Appendix 1.

The Board advises the TCEQ on issues pertaining to the plan, including revenue sources and financial incentives, and any legislative, regulatory, policy, or budgetary changes needed.

Programs

The TERP includes a number of new programs intended to address the goals of the plan. These programs are administered by a number of different state agencies, and address various aspects of the plan.

Emissions Reduction Incentive Grants Program

The Emissions Reduction Incentive Grants Program is administered by the TCEQ. The program provides grants to eligible projects in affected counties to offset the incremental cost associated with the activities to reduce emissions of NO_x from high-emitting diesel sources in nonattainment areas and other affected counties of the state.

Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program

The Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program is a statewide program also administered by the TCEQ. Under this program, the TCEQ may reimburse a purchaser or lessee of a new on-road heavy-duty (10,000 lb or more) vehicle for incremental costs of purchasing or leasing the vehicle in lieu of a higher-emitting diesel-powered vehicle. The vehicle being purchased or leased must be certified by the U.S. Environmental Protection Agency (EPA) to meet certain designated lower emissions standards for NO_x.

Light-Duty Motor Vehicle Purchase or Lease Incentive Program

The Light-Duty Motor Vehicle Purchase or Lease Incentive Program is similar to the Heavy-Duty Program, and provides incentives statewide for the purchase or lease of light-duty (less than 10,000 lb) motor vehicles that are certified by the EPA to meet a lower emissions standard for NO_x. The incentive program is administered by the Texas Comptroller of Public Accounts (Comptroller).

The Comptroller is to establish a program to administer the application for and payment of the incentives for eligible vehicles. The Comptroller is to track the incentives and report to the TCEQ on the status of the program.

In addition, other agencies and the vehicle manufacturers are responsible for parts of the program, including:

Manufacturer's Report and List of Eligible Motor Vehicles. Not later than July 1 of each year, manufacturers must provide to the TCEQ a list of new vehicle models that the manufacturer intends to sell in the state during that model year that meet the incentive emissions standards. On August 1 of each year, the TCEQ is to publish and provide to the Comptroller a list of motor vehicles that qualify for the incentive.

Vehicle Emissions Information Brochure. Vehicle manufacturers must publish and make available to their dealers, for distribution to the dealers' customers, a brochure that includes the list of eligible motor vehicles.

Public Information Insert. The Texas Department of Transportation (TxDOT) is directed to insert a notice describing the incentive program with each annual vehicle registration renewal notice.

Low-Emissions Vehicle Insignia for Certain Motor Vehicles. At the time of registration or reregistration, TxDOT is to issue a specially designed "low-emissions vehicle" insignia for a motor vehicle that meets the qualifications for the incentive program. The TCEQ sponsored a contest in the state's public schools to select a student design for the insignia.

Energy Efficiency Grant Program

The Energy Efficiency Grant Program is administered by the Public Utility Commission of Texas (PUC). The program provides grants to electric utilities, electric cooperatives, and municipally-owned utilities for energy efficiency programs. Grant-funded programs must include the retirement of materials and appliances that contribute to peak energy demand to ensure the reduction of energy demand, peak loads, and associated emissions of air contaminants.

The PUC is also responsible for reporting to the TCEQ on the status of energy efficiency programs implemented under Senate Bill (SB) 7, 76th Texas Legislature. The energy efficiency programs are part of a broad program adopted pursuant to SB 7 to implement retail competition in the sale of electricity.

New Technology Research and Development Program

The TERP includes the creation of the Texas Council on Environmental Technology (TCET) to administer the New Technology Research and Development Program. The TCET is made up of 11 members appointed by the Governor and is housed at the Center for Energy and Environmental Resources at the University of Texas at Austin.

Under this new program, the TCET provides grants to be used to support development of emissions-reducing technologies that may be used for projects eligible for awards under the Emissions Reduction Incentive Grants Program and other new technologies that show promise for commercialization.

Texas Building Energy Performance Standards

To achieve energy conservation in residential construction, the TERP included adoption of the energy efficiency chapter of the International Residential Code as the energy code in Texas for single-family residential construction. For all other residential, commercial, and industrial construction, the International Energy Conservation Code was adopted as the energy code for use in Texas.

The Energy Systems Laboratory (ESL) at the Texas Engineering Experiment Station of the Texas A&M University System is responsible for assisting municipalities and counties to determine the relative impacts of local amendments to the codes.

Energy Efficiency Programs in Certain Political Subdivisions

Under the TERP, affected counties and political subdivisions, other than a school district, in a nonattainment area or in an affected county are asked to implement energy efficiency measures and to establish a goal to reduce the electricity consumption by the political subdivision by 5 percent each year for five years, beginning January 1, 2002.

Affected political subdivisions are to report annually to the Texas Comptroller's State Energy Conservation Office (SECO) regarding the political subdivision's efforts and progress. SECO is to provide assistance and information to political subdivisions to help in meeting the goals of the program.

TERP Fund

Revenue Sources

The Texas Emissions Reduction Plan Fund was created as an account in the state treasury. In enacting SB 5, the 77th Legislature created a number of new revenue sources to fund the various SB 5 programs:

- **Construction Equipment Surcharge**. A surcharge of 1 percent was imposed on the retail sale, lease, or rental of new or used construction equipment.
  - — The original revenue estimates for this surcharge included collections based on both the sales tax transactions for this equipment and the user tax that is collected on equipment that is purchased out-of-state for use within the state. However, based on the Comptroller's final interpretation of the statutory language, the surcharge has only been collected based on the sales tax transactions and not on the user taxes.

- **On-road Heavy-Duty Diesel Motor Vehicle Surcharge**. A surcharge of 2.5 percent was imposed on the retail sale or lease of pre-1997 on-road diesel motor vehicles over 14,000 lb.

- **Registration Surcharge**. A surcharge of 10 percent of total fees was imposed on the registration of truck-tractor and commercial motor vehicles.

- **Commercial Motor Vehicle Inspection Fee**. A fee of $10 was imposed on the inspection of commercial motor vehicles.

- **Out-of-State Vehicle Inspection Fee**. SB 5 also increased the fee for the inspection of an out-of-state vehicle, for purposes of being registered in Texas, from $1 to $225.
  — Motions for summary judgement against this fee were filed and the court found that the plaintiffs were entitled to judgement as a matter of law because the fee violates the Commerce Clause and the Equal Protection Clause of the United States Constitution *[H. M. Dodd Motor Co. Inc. v. Tex. Dep't of Public Safety, No. GN102585 (200th Dist. Ct., Travis County, Tex., Apr. 12, 2002)]*. As a result, no revenues were collected from this fee.

As a result of the court decision on the out-of-state vehicle inspection fee, as well as the reduced revenue collections for the construction equipment surcharge, the revenue received for FY 2002 was $20.5 million, down from the $137 million that was originally expected to be received.

Revenue Allocation

TERP Fund Percentage Allocation

The money in the TERP Fund is to be used to implement and administer the programs established under the plan. The Legislature, through SB 5, allocated the funds to the various programs, as follows:

- 72 percent of the money in the fund is for the diesel emissions reduction incentive programs administered by the TCEQ, including the Emissions Reduction Incentive Grants Program and the Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program. Not more than 15 percent of this amount may be used for the Heavy-Duty Motor Vehicle Incentive program. In addition, not more than 3 percent may be used for Infrastructure Projects under the grants program.

- 10 percent of the money in the fund is for the Light-Duty Motor Vehicle Purchase or Lease Incentive Program administered by the Comptroller.

- 7.5 percent of the money in the fund is for the Energy Efficiency Grant Program administered by the PUC.

- Another 7.5 percent of the money in the fund is to support the New Technology Research and Development Program, of which $250,000 was allocated for administration expenses by TCET, up to $200,000 was allocated for a health effects study, and $500,000 to be deposited in the state clean air account to supplement funding for air quality planning activities in affected counties.

- The remaining 3 percent of the money in the fund is for administrative costs incurred by the PUC, TCEQ, Comptroller, and the Energy Systems Laboratory.

Revenue Collected and Distributed

The allocation of the $20.5 million in revenue received in FY 2002, including funds for administrative expenses, was as follows:

• Texas Commission on Environmental Quality	$14,041,021
• Public Utility Commission	$1,580,721
• Comptroller of Public Accounts	$3,224,416
• Energy Systems Laboratory	$181,854
• Texas Council on Environmental Technology	$1,503,495

Status of Implementing the TERP

Program Status

This section provides a summary of the major implementation milestones reported to date by the agencies responsible for implementing the plan.

Texas Commission on Environmental Quality (TCEQ)

Responsibilities

1. Emissions Reduction Incentive Grants Program.
2. Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program.
3. Guidelines, criteria, and certain program elements for the Light-Duty Motor Vehicle Purchase or Lease Incentive Program administered by the CPA.
4. Administrative support to the TERP Advisory Board.
5. Tracking NO_x emission reductions and incorporating those reductions into the State Implementation Plan (SIP).
6. Reporting to the Legislature.

Status

1. Adopted rules to implement SB 5 programs in August 2001.
2. Adopted guidelines in October 2001 for the Emissions Reduction Incentive Grants Program, Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program, and vehicle manufacturer requirements for the Light-Duty Motor Vehicle Purchase and Lease Incentive Program.
3. Assisted with three meetings of the TERP Advisory Board.
4. **Emissions Reduction Incentive Grants Program**. Completed two grant application and selection processes for funding through August 2002, with the following results:
   - 43 projects selected, including one demonstration project
   - $13,558,711 in grants selected
   - 2515.77 projected total tons of NO_x emissions reduced over the life of the projects
   - 1.31 tons per day of NO_x emissions projected to be reduced in 2007
   - Cost per ton of NO_x reduced – $5,389
   - Lists of projects and technologies funded are provided in Appendixes 4, 5, and 6
5. **Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program**. The program guidelines and application materials have been prepared. However, because of the reduction in revenues, available funding has been used for the grants program.
6. **Light-Duty Motor Vehicle Purchase or Lease Incentive Program**.
   - Completed a logo contest for public school children and approved a *Low-Emissions Vehicle Insignia* (copy provided in Appendix 2).
   - Worked with vehicle manufacturers and a consumer group to develop the manufacturers brochure that must be made available to dealers for distribution to customers.
   - Received reports from vehicle manufacturers on vehicles eligible for the light-duty incentive program, and made the list of eligible vehicles available on the web (copy provided in Appendix 3).
   - Coordinated with the TxDOT on the insert to include with vehicle registrations regarding the light-duty incentive program.

Texas Comptroller of Public Accounts (Comptroller)

Responsibilities

1. Collection of revenues from the surcharges.
2. Management of the TERP Fund.
3. Administration of the Light-Duty Motor Vehicle Purchase or Lease Incentive Program (Clean Vehicle Incentive Program).

4. Provide a report annually to the TCEQ regarding the vehicles and incentives provided under the Light-Duty Motor Vehicle Purchase or Lease Incentive Program

Status

1. Adopted administrative rules, which provide guidelines for taxpayers, and have successfully designed and implemented these systems, including the necessary forms, publications and computer systems.
2. Established a toll-free phone number and a website to notify the public about the programs.
3. Established the Clean Vehicle Incentive Program. This program included development of:
   - Literature that explains the program for dealers to give to customers interested in the program
   - A toll-free automated phone number that purchasers or dealers can use to verify that incentives are available
   - A web page that explains the program and can be used to verify that incentives are available
   - A form that a purchaser or lessee can use to request an incentive
   - An administrative rule that sets out the guidelines for the program
4. The number of incentives and when the first incentive can be paid are affected by the lower than expected revenue. As of September 24, 2002, the fund balance for the Clean Vehicle Incentive Program was $2,254,117. One application has been received as of September 24, 2002, but as provided for in Section 386.161(b), Texas Health and Safety Code, payments have been suspended until the balance available in the fund is adequate to begin providing incentives. As a result, it may be Spring 2003 before the incentives will be available. The Comptroller will then be able to start submitting annual reports to the TCEQ regarding the incentives provided.

State Energy Conservation Office (SECO)

Responsibilities

1. Provide assistance and information to political subdivisions to help the political subdivisions meet the goals set under the TERP.
2. Report annually to the TCEQ on:
   - the progress of all political subdivisions within the 38 nonattainment and affected counties to implement the energy efficiency programs under the TERP; and
   - an evaluation of the effectiveness of state and political subdivision energy efficiency programs, including programs under Chapter 388, Texas Building Energy Performance Standards of SB 5.

Status

1. In conjunction with the SB 5 responsibilities, SECO will partner with the U.S. Department of Energy (DOE)/Rebuild America Initiative and the EPA/DOE Energy Star Partnership.
2. Conducted workshops in affected counties and established a website to provide information on "How to Comply" with the SB 5 requirements.
3. Annual reports from political subdivisions will be due to SECO by March 1 of each year, and the first reports are due on March 1, 2003. These reports will be used by SECO to provide annual reports to the TCEQ on the status and effectiveness of the energy efficiency programs. Preliminary reports, which will be used to establish a baseline information, have been received from 170 political subdivisions, with 100 reporting that they have established the 5 percent reduction goal required under SB 5. Of the political subdivisions reporting, 111 indicated a baseline energy usage of 4,991,435,260 kilowatt-hours (kWh). Assuming each of these entities is successful in attaining its reduction goal, SECO estimates that a savings of 249,571,763 kWh would be achieved in 2002 and a savings of 1,247,858,815 kWh by 2007.

Public Utility Commission of Texas (PUC)

Responsibilities

1. Develop an energy efficiency grant program.
2. Pursuant to SB 7 (76th Texas Legislature), implement retail competition in the sale of electricity and a program that focuses on consumption of electricity in nonattainment areas and affected counties.
3. Report annually to the TCEQ the reductions, by county, in energy demand, peak loads, and associated emissions of air contaminants achieved through these programs.

Status

1. Adopted rules to implement SB 5 programs in October 2001.
2. Developed a simplified model for estimating emission reductions that relies on power plant emission rates, historical relationships between the areas in which power is produced and the areas in which it is consumed, and projections of energy savings from the SB 5 and SB 7 programs.
3. Completed grant application and selection process, and selected two grants for funding in May 2002: $200,000 for a load management program from Reliant in the Houston-Galveston nonattainment area; and $67,950 for a commercial lighting program from Entergy in the Beaumont-Port Arthur nonattainment area.

4. The projected energy savings over the ten-year project life of the Entergy project total 13,000 megawatt-hours (MWh) beginning in 2003. Reduction figures for the Reliant project are still to be determined, although this project resulted in a peak load reduction of 2.12 megawatts (MW) in 2002.
5. The projected energy savings from nine SB 7 programs include 246,224 MWh per year, or 2,462,240 MWh over the 10-year project life. The cost of these programs totals $43,856,823.
6. The PUC's report to the TCEQ, *Emission Reduction Incentive Grants Report*, provides a summary of the energy efficiency incentive programs. This report is available from the TCEQ and the PUC.

Energy Systems Laboratory
Texas Engineering Experiment Station
Texas A&M University System

Responsibilities

1. Assist the Public Utility Commission to quantify, by county, the reduction achieved from programs implemented under SB 5 Energy Efficiency Programs, and those under SB 7 (76th Texas Legislature).
2. If requested, review local amendments to the energy code provisions of SB 5 in nonattainment areas and affected counties.
3. Provide forms for a builder to certify compliance with energy code requirements for a building outside of the local jurisdiction of a municipality.
4. Provide information and technical assistance to builders, designers, engineers, and architects.
5. Develop a standardized report format to be used by providers of home energy ratings (HERs).
6. Submit an annual report to the TCEQ identifying the municipalities and counties whose codes are more stringent, as well as those that are equally stringent or less stringent, than the energy efficiency chapter of the International Residential Code or International Energy Conservation Code; and also quantifying energy savings from the adoption of building energy efficiency performance standards.

Status

1. Developed web site with information for builders, code officials, and homeowners.
2. Produced a simplified Builders Guide.
3. Developed a self-certification form for code compliance for residential buildings in unincorporated areas.
4. Provided 29 IECC/IRC code training workshops.

5. Developed a code-traceable DOE-2 input file for calculating energy savings and demand reductions from implementation of the IECC/IRC statewide. These simulations are needed for analyzing the energy savings from proposed municipality code amendments, and annual calculations of IECC statewide savings.
6. Initiated development of several analysis plans to report the energy reductions from the implementation of the IECC/IRC to the TCEQ.
7. The Energy Systems Laboratory's annual report to the TCEQ, *Annual Report to the Texas Commission on Environmental Quality*, is available from the TCEQ and from the Laboratory.

Texas Department of Transportation (TxDOT)

Responsibilities

1. Develop and insert a notice describing the Light-Duty Motor Vehicle Purchase or Lease Incentive Program with each annual vehicle registration renewal notice.
2. Collect a 2.5 percent surcharge for every on-road diesel vehicle over 14,000 lb. and of a model year 1996 or earlier sold or leased in this state, in addition to the 6.25 percent sales tax.
3. There is also a 10 percent registration fee surcharge for registration of commercial and apportioned motor vehicles.

Status

1. Insert language has been developed and the insert is being used.
2. Programming was completed and collection of the fees was implemented.

Texas Council on Environmental Technology (TCET)

Responsibilities

1. To fund the development of and evaluate new technologies; to seek the approval of the EPA for those technologies; and to facilitate the deployment of those technologies.
2. To assist the TCEQ and the EPA in the process of ensuring credit for new, innovative and creative technological advancements.
3. To fund a study on the health effects of air pollution.

Status

1. Developed grant guidelines and administration procedures.
2. The first grant RFP was issued in March 2002, with deadline of April 2002. Thirty-two proposals were received ($4.6 million); eleven proposals were judged to be of sufficient technical merit and prospective environmental benefit; with four proposals selected for contracts ($825,000).
3. Issued an RFP and selected a contractor to conduct an initial health health effects study for $50,000.
4. Concurrent with the health effects RFP, issued another RFP and selected a contractor to perform a critical assessment of air quality technology development needs for $50,000.
5. A list of the RFPs and the proposals selected for funding is included in Appendix 7.

Emission Reductions to Date

It is too soon to be able to provide many measurable results from the various programs under the TERP. As noted in the program summaries, some of the programs have been implemented, while others are still in the initial stages of implementation. Results available to date are provided below.

Emissions Reduction Incentive Grants Program (TCEQ)

The first two funding rounds for the Emissions Reduction Incentive Grants program were successful, with 43 projects selected for funding, totaling $13,558,711. The revenue distributed to the TCEQ this first year totaled $14,149,022, which includes the funding for administrative expenses, so the program was able to obligate most of the available grant funding.

For the first round of funding, the application deadline was November 21, 2001, and the project selections were approved on February 15, 2002. The second round application deadline was March 29, 2002, with project selections approved on June 7, 2002. Applicants selected for funding are offered a grant contract, with payments to be made on a reimbursement basis.

Financial and program reports are required during the grant period, and annual monitoring reports will be required over the life of the projects. This information will be used to document that the reductions projected in awarding a grant are actually achieved. As revisions to the State Implementation Plan (SIP) are made, the projects funded under the TERP will be referenced in the SIP, so that the emission reductions expected from those projects can be counted toward the SIP goals.

The projects funded under this program to date are listed in the tables in Appendixes 4 and 5, including a description of the project and the reductions in NO_x emissions expected to be achieved by the project. Appendix 6 includes a table showing the number and type of technologies to be purchased under the selected projects.

The 43 projects include 549 separate emission reduction activities, including:

- 105 new purchases
- 2 leases of new equipment
- 4 repowers (replacement of current engine with a cleaner engine)
- 427 retrofits and add-on of emission reducing devices
- 1 refueling infrastructure
- 9 qualifying fuel activities
- 1 demonstration of new technologies project

A summary of the expected results from these projects is provided below.

- Projected Total Tons of NO_x Reduced
  - Dallas/Fort Worth: 2,085.27
  - Houston/Galveston: 430.50
  - Total: 2,515.77
- Projected Tons Per Day of NO_x Emission Reductions in 2007
  - Dallas/Fort Worth: 1.16
  - Houston/Galveston: 0.15
  - Total: 1.31
- Cost Per Ton of NO_x Reduced: $5,389

The 1.31 tpd purchased to date are only a small percentage of the 35.2 tpd needed by 2007 to replace the mandatory provisions that were removed from the SIP. However, with full funding, the incentive programs have the potential to achieve the goals of the TERP.

Energy Efficiency Programs (PUC and Energy Systems Laboratory)

The PUC is to provide an annual report to the TCEQ that, by county, quantifies the reductions of energy demand, peak loads, and associated emissions of air contaminants achieved from the programs implemented under SB 5 and under SB 7 (76th Texas Legislature). The PUC's report, *Emission Reduction Incentive Grants Report*, provides a summary of the energy efficiency incentive programs.

The Energy Systems Laboratory is also to report to the TCEQ on identifying the municipalities and counties whose codes are more stringent, as well as those that are equally stringent or less stringent, than the energy efficiency chapter of the International Residential Code or International Energy Conservation Code; and also quantifying energy savings from the adoption of building energy efficiency performance standards. The PUC's initial annual report to the TCEQ, *Annual Report to the Texas Commission on Environmental Quality*, provides additional detailed analyses of the potential for energy efficiency programs to reduce NO_x emissions in Texas.

These reports are available from the TCEQ, as well as from the PUC and the Energy Systems Laboratory.

Energy Efficiency Grant Program

Due to the revenue shortfalls for the SB 5 program, the PUC conducted the first grant cycle program for 2002 at a reduced scale, in effect, as a pilot program. This provided the opportunity to test the processes in order to troubleshoot, and make corrections for future program expansion and implementation.

The PUC received four proposals from utilities in three nonattainment areas. Following an evaluation and rating process, two of the proposals were selected for funding. The projects selected include a $200,000 proposal for a load-management program by Reliant in the Houston-Galveston nonattainment area, and a $67,950 proposal for a commercial lighting program by Entergy in the Beaumont-Port Arthur nonattainment area.

The projected energy savings over the 10-year project life, were:

- Entergy – 13,000 MWh energy savings, beginning in 2003
- Reliant – 2.12 MW peak load reduction in 2002. Overall energy savings are still to be determined.

Energy Efficiency Programs under SB 7

In contrast to the SB 5 grants program, the SB 7 funding source for energy efficiency programs is the transmission and distribution fees that are collected by utilities in areas were competition has begun and electricity fees in areas where competition has not begun. The SB 7 funds are directly administered by the utility for disbursement to Energy Services Companies (ESCOs) for programs in their service areas.

The 2002 utility reports to the PUC from nine companies reflect SB 7 expenditures for all programs to be $43,856,823, with total projected energy savings of 2,462,240 MWh to be achieved over the program's ten-year life.

Determining NO_x Emission Reductions

The EPA's Office of Atmospheric Programs, in coordination with the TCEQ, ERCOT, and PUC, has developed a methodology for quantifying the potential reductions resulting from energy savings due to energy efficiency measures. While this is a good first step in attempting to quantify the potential reductions associated with energy efficiency, there is still a lot of work that needs to be done to refine the methodology to allow for the reductions to be creditable in the SIP.

One difficulty with conducting this analysis is that reductions in energy consumption by users located in a certain geographic area may not result in a corresponding reduction in emissions from energy generators in that same area. This is particularly the case as a result of the deregulation of energy services, whereby the electricity consumed in one area may be generated from multiple sources located in several geographic areas.

Adjustments to the Program Criteria

The TCEQ has the authority, after consultation with the TERP advisory Board, to make changes to the project selection criteria and maximum cost-effectiveness amount established in SB 5. This report is to include a description of any adjustments made to the criteria. To date, only minor clarifications have been made to the original program standards.

The recommendations in this report include discussion of issues to be addressed by the Legislature. There are other issues that can be addressed through changes to the Program Guidelines by the TCEQ. It is expected that the Program Guidelines will be revised in 2003, based on any new direction by the Legislature through changes to the statute. At that time, the TCEQ, in consultation with the TERP Advisory Board, will also consider additional adjustments that may be needed to the program criteria.

Addressing Additional Pollutants as Part of the Plan

The focus of the TERP is on reducing NO_x emissions, particularly in the state's air quality nonattainment areas. Other pollution reduction benefits of the TERP programs may also be considered, and this report is to include an evaluation of the benefits of addressing additional pollutants as part of the plan.

With the reductions in expected revenues, the program focus has been on implementing the programs to maximize the reduction of NO_x emissions. As these programs are further implemented, and pending any decisions by the Legislature regarding restoration of funding for the TERP, the TCEQ will be better able to consider how this program can target reductions in other pollutants, in addition to NO_x.

Legislative Recommendations

Funding Issues

The key issue that will need to be addressed by the Legislature is the need for full funding of the TERP. Funding for the TERP will either need to be restored, or other mechanisms considered to achieve the reductions needed in the DFW and HGA nonattainment areas.

A consequence of not restoring the funding, or otherwise identifying other mechanisms to achieve the emission reductions in these areas, could be the imposition of federal sanctions under the Clean Air Act. The EPA could disapprove the SIP for the DFW area and find that the SIP for the HGA area is not being implemented, as outlined in the EPA's notice of proposed changes to Title 40 of the Code of Federal Regulations, Part 52, published in the August 1, 2002, *Federal Register* (67 FR 148, pages 49895–49900), If the EPA takes these actions, the state would have up to 18 months to correct the deficiencies or the HGA and DFW areas would face federal sanctions, which may include the loss of federal highway funding.

Other Issues

Additional changes to the implementing statutes are also needed in order to make the program more effective. After reviewing the public comments received on the draft of this report and after consultation with the TERP Advisory Board, the TCEQ offers the following recommendations for consideration by the Legislature.

In addition to these recommendations, the TCEQ supports the efforts of the TCET to enhance the research, development, testing, and certification of new emissions-reducing technologies, so that those new technologies may be available for use in Texas. The TCET is to provide a separate report to the 78th Texas Legislature, and that report will address new technology issues.

Emissions Reduction Incentive Grants Program

1. Amend the eligibility requirements to give the TCEQ more flexibility in determining who may receive grant funds and how the grants are administered. For instance, there is significant interest in the TCEQ working in partnership with regional public or private entities or both to fund pre-approved emissions-reducing technologies through some type of regional approach. There is also interest in the agency

partnering with similar funding programs, such as the funding program administered by the Houston-Galveston Area Council (HGAC) using federal Congestion Mitigation/Air Quality Improvement (CMAQ) funds. Each partnership arrangement would be evaluated on a case-by-case basis to determine how the TERP funds could best be used. Under the partnership approaches that might be considered, the entity partnering with the TCEQ would normally be expected cover its administrative costs, and TERP funds would only be used for the direct costs of the emissions reduction project. However, the agency might consider funding some administrative costs, on a limited basis, if doing so would help meet the needs of the program.

2. In conjunction with the first recommendation, authorize the TCEQ to share the emissions reductions generated by a TERP-funded project, according to the percentage of the incremental costs funded under the TERP and the percentage funded under the other program. The authority to share the credits is needed in order for the agency to work jointly with other funding programs. The project would still need to meet the cost-effectiveness requirements, based on the emissions reductions applied to the TERP portion of the project.

3. Make the purchase of new heavy-duty vehicles eligible for funding under the Emissions Reduction Incentive Grants Program, as well as the Heavy-Duty Vehicle Purchase or Lease Incentive Program. This will allow more flexibility by allowing purchases of new heavy-duty vehicles to be eligible under either program.

   The grants program may be used for the purchase or lease of new *non-road* equipment, while the Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program is for the purchase or lease of new *on-road* vehicles. Making new purchases or leases of on-road vehicles eligible under both programs would enhance the TCEQ's ability to solicit and structure projects to best meet the goals of the TERP.

   For instance, the Heavy-Duty Incentive Program is statewide, while the grants program targets emission reductions in the affected counties. Allowing the grants program to fund heavy-duty on-road vehicle purchases will aid in the TCEQ's ability to apply the emission reductions from those projects to the SIPs. At the same time, under the grants program, a project may be eligible for a greater incentive amount than under the current Heavy-Duty Incentive Program. While not all potential applicants would choose the grants program over the current Heavy-Duty Incentive Program, especially due to the more stringent requirements for a grant, the grants program would make sense for some larger on-road projects. In addition, this would assist

the agency in working jointly with the HGAC's CMAQ funding program, which may be used for the purchase of new heavy-duty vehicles.

4. Authorize the TCEQ to provide grant incentives for the replacement of older model year heavy-duty vehicles and non-road equipment with "newer" (i.e., not factory new) vehicles and equipment. Include the authority for TCEQ to establish an appropriate incentive amount.

   This program would be similar to a pilot program established by the Sacramento (California) Air Quality Management District. Under that program, incentive funding is available for the replacement of a pre-1984 truck with a newer truck (not newer than model year 1990). The maximum incentive amount is based on the N.A.D.A. Base Loan Value, and must meet certain cost-effectiveness criteria.

   While *repowers* of vehicles and equipment are currently authorized, older vehicles and equipment may not be compatible with newer engines and emissions reducing devices. In addition, smaller companies that typically use these older models are not as likely to repower their old engines. By providing an incentive to remove these older vehicles and equipment from service, the state would be achieving significant emission reduction benefits. In addition, this approach would have a "ripple" effect, by encouraging turnover in the larger fleets, resulting in a greater number of "new" cleaner vehicles and equipment being brought into use sooner.

   The proposed Texas program would include both on-road heavy-duty vehicles and non-road equipment. The cost-effectiveness criteria would be consistent with the cost-effectiveness requirements for other grant projects.

5. Remove the percentage reduction requirements under the definition of a repower project [Section 386.101(9), Texas Health and Safety Code]. Section 386.103(f) already directs that repower and retrofit projects achieve a 30 percent reduction in NO_x. This section further authorizes the TCEQ to establish criteria for how the baseline emissions are determined and to amend the minimum percentage reduction requirements to improve the ability of the program the achieve its goals. By removing the separate, and more specific, percentage reduction requirements from the definition of a repower project, the TCEQ will have the flexibility to set the baseline levels and percentage reduction levels for a repower project, as appropriate, to best meet the goals of the program.

6. Remove the 3 percent funding cap on infrastructure projects. Infrastructure costs should be rolled in with the costs of the supported equipment and the total package evaluated on a cost-effectiveness basis. In the alternative, provide that infrastructure purchases that are part of a broader repower or retrofit project will not be considered infrastructure projects and, therefore, not subject to the 3 percent cap.

   Availability of fueling infrastructure is particularly important for the success of any alternative-fuel technologies. However, the 3 percent funding cap on infrastructure projects, along with the reduction in overall TERP revenue and the requirement that infrastructure projects meet the $13,000 per ton cost-effectiveness requirement, have limited the ability of the program to fund infrastructure projects of a scale necessary to effectively support potential alternative-fuel projects.

7. The list of *affected* counties in the statute should include Hunt, Hood, and Henderson Counties. These counties are part of the near-nonattainment area surrounding the Dallas-Fort Worth nonattainment area. It appears that these counties were inadvertently left off of the list in the statute. The TCEQ should be given authority to periodically amend this list, to include these three counties and to address future changes to the areas identified as nonattainment or near-nonattainment. Changes to the counties designated as nonattainment can occur, for example, when the EPA adopts new standards or when air quality in certain areas improves to the extent that the area is in attainment of the standard. Giving the TCEQ the authority to periodically amend the list of affected counties will allow them to make these changes without requiring additional legislative action.

Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program

1. This program is currently limited to vehicles which have received certification of their emissions by the EPA. The statute should be changed to allow the acceptance of vehicles with engines certified by the California Air Resources Board (CARB), as well as the EPA. This change will allow for consideration of dual-fuel engines, which have been certified by CARB, but are not currently supported by EPA guidelines.

2. The Heavy-Duty Vehicle Purchase or Lease Incentive Program should clearly include all fuels, and not just diesel-fueled vehicles. Possibly due to a drafting oversight under Sections 386.112 – 386.113 of SB 5, it appears that only "diesel-powered" vehicles that meet the incentive emissions standards would be eligible for a rebate of incremental costs. Because the intent of this program was clearly to provide incentives for the purchase or lease of cleaner vehicles, *in lieu of* higher-emitting diesel vehicles, the TCEQ included as eligible under the Guidelines the purchase or lease of any heavy-duty on-road motor vehicle meeting the incentive emissions standards, regardless of the type of fuel used. The Legislature should consider clarifying the statutory provisions as well.

Light-Duty Motor Vehicle Purchase or Lease Incentive Program

1. The provision for allowing cars that qualify for the Light-Duty Motor Vehicle Purchase or Lease Incentive Program to operate on high-occupancy vehicle (HOV) lanes should be amended to allow for selective implementation, contingent upon the effect of the provision on compliance with federal HOV lane funding rules and requirements. This provision conflicts with federal funding requirements for HOV lanes, and could jeopardize the funding provided to some areas for HOV lane construction if the qualifying single-occupancy vehicles are allowed to operate on HOV lanes.

   Under SB 5, Section 431.073 of the Texas Transportation Code was amended to allow motor vehicles displaying the "low-emissions vehicle" insignia to travel in high occupancy vehicle (HOV) lanes, regardless of the number of occupants in the vehicle. However, this provision conflicts with federal requirements relating to the definition of a HOV lane and associated federal funding requirements. Federal law requires than a HOV lane have no fewer than 2 occupants per vehicle.

The exception to the rule under EPA regulations (Sections 88.313-93, Title 40, Code of Federal Regulations) is that a fleet vehicle which as been certified and labeled as and Inherently Low Emission Vehicle may travel on HOV lanes with a single occupant. This exception does not apply to the Light-Duty Motor Vehicle Purchase or Lease Incentive Program.

Appendix 1

Texas Emissions Reduction Plan
Advisory Board Members

The TERP Advisory Board consists of 15 appointed members and 7 ex-officio members.

Member	Organization
Appointed by: Governor of Texas	
Dr. Pernendu Dasgupta	Texas Council on Environmental Technology
John Goodman	Air Conditioning Manufacturing Industry
Elizabeth Hill Gunter	Electric Utility Industry
Dr. Naomi Lede'	Regional Transportation
Mark Rhea	Trucking Industry
Appointed by: Lt. Governor of Texas	
Michael Flores	Energy-Efficient Construction Industry
“Vacant”	Fuel Cell Industry
Thomas "Smitty" Smith	Environmental Community
Jim Crites	Air Transportation
John Mikolaitis	Engine Manufacturing Industry
Appointed by: Speaker of the Texas House of Representatives	
Bob Lanham	Construction Industry
Reggie James	Consumer Groups
Clay Cash	Fuel Industry
Chuck Nash	Automobile Industry
Bill Mason	Agriculture Industry

Ex Officio Members:

- Presiding Officer of the Senate Natural Resources Committee
- Presiding Officer of the House Environmental Regulation Committee
- Representative of the Texas Commission on Environmental Quality
- Representative of the Texas General Land Office
- Representative of the Comptroller of Public Accounts
- Representative of the Railroad Commission of Texas
- Representative of the U.S. Environmental Protection Agency, Region 6

Appendix 2

Low-Emissions Vehicle Insignia

Appendix 3

Vehicles Eligible for Light-Duty Motor Vehicle Purchase or Lease Incentive Program

Vehicle Make	Vehicle Model	Vehicle Model Year	Fuel type	Emission Standard
Ford	Crown Victoria NGV	2003	CNG	Tier 2-Bin 3
Ford Think	City Electric Vehicle	2003	Electric Vehicle	Tier 2-Bin 1
Honda	Civic GX	2003	CNG	Tier 2-Bin 2

Appendix 4

Emissions Reduction Incentive Grants
FY 2002 - 1st Round
Project Selection Recommendations*

App No.	Applicant	Area	Project Type	Incentive Amount	Infrastructure Amount	Est. NOx Reduction (tons/yr.)	Est. NOx Reduction (total tons)	Project Life (years)	Estimated Cost-Effectiveness
005	Port of Houston Authority	HGA	2 Repowers Marine Vessel (2 engines)	$337,000.00		5.46	54.5	10 yrs.	$7,235.66
016	Blue Fuels Group, L.P.	DFW	1 Fueling Infrastructure (LNG) (Emission reductions are based on annual mileage of 7 dual-fuel vehicles not funded under this program, and using the fuel from the infrastructure.)	$280,000.00	$280,000.00	3.24	32.4	10 yrs.	$10,131.00
006	HEB, Houston	HGA	12 Retrofits Vehicles to LNG (Dual Fuel Kit)	$439,004.90		7.56	45.36	6 yrs.	$10,719.47
002	DFW International Airport	DFW	2 New Purchases CNG Backhoe & Street Sweeper	$66,033.00		0.76	6.56	10 yrs. & 7 yrs.	$11,635.42
008	City of Houston	HGA	33 Add-On Devices Excavators (SCR devices)	$501,006.00		9.02	45.01	5 yrs.	$12,128.27
007	SYSCO of Houston	HGA	27 Retrofits Vehicles to LNG (Dual Fuel Kit)	$577,800.00		6.34	50.73	8 yrs	$12,979.36
010	Holt Company of Texas	DFW	22 New Purchases Excavators & Graders	$413,500.00		6.95	34.75	5 yrs.	$12,991.31
			Total Implementation Projects	**$2,614,343.90**	**$280,000.00**	**39.33**	**269.31**		
001	EcoTrans Technologies	HGA	Demonstration - APU on Locomotive	$285,000.00					
			Total Recommended for Funding	**$2,899,343.90**					
Eligible Projects Not Recommended for Funding									
009	Snead Research Laboratory	HGA	Demonstration - Fuel Cell on Trolley (Galveston)	$934,000.00					

*This list does not represent the final grant awards. The award of each grant is contingent upon agreement and execution of a grant contract between the TCEQ and the applicant.

Emissions Reduction Incentive Grants
FY 2002 - 1st Round
Projects Determined to Be Ineligible for Consideration

App. No.	Applicant	Project Description	Reason Project was not eligible
003	DFW Airport	Qualifying Fuel - Use of PuriNOx for on-road and non-road applications. *Backhoe and Sweeper deemed eligible*	The TNRCC held off consideration of PuriNOx projects, pending further evaluation. Applications for funding PuriNOx were subsequently accepted under the 2nd application period.
004	Shippers Stevedoring Co.	Repower - Replace engine on a crane.	The new engine was not 30% cleaner than the current federal standard for that horsepower of engine.
005	Port of Houston Authority	4 Repowers - Cranes 8 New Purchases Qualifying Fuel - Use of PuriNOx for non-road applications. *Repower of the fireboat was determined eligible.*	The crane repowers and the new purchases were not 30% cleaner than the current federal standards. The TNRCC held off consideration of PuriNOx projects, pending further evaluation. Applications for funding PuriNOx were subsequently accepted under the 2nd application period.
011	Standard Alcohol Company	Demonstration Project - Fuel alcohol.	This was not a valid application. The company expressed interest in working with someone on a project using their product.
012	City of Denton	Qualifying Fuel - Use of EnviroMax diesel (EMD). Infrastructure - Tanks for the EMD.	The project was not cost effective over the one year life. Technology was unable to be verified by technical staff, not enough testing information was provided to deem the claimed emission reductions valid.
013	Jack B. Kelley, Inc.	6 Retrofits - LNG dual fuel kits. 1 Infrastructure - LNG station	The retrofit kits have not been certified for use on the model year of engine proposed, not enough technical information submitted to verify the claimed reductions.
014	J.A.M. Distributing	Qualifying Fuel - Use of PuriNOx for on-road applications.	The TNRCC held off consideration of PuriNOx projects, pending further evaluation. Applications for funding PuriNOx were subsequently accepted under the 2nd application period.
015	Rustin Transportation Co.	Qualifying Fuel - Use of PuriNOx for on-road applications.	The TNRCC held off consideration of PuriNOx projects, pending further evaluation. Applications for funding PuriNOx were subsequently accepted under the 2nd application period.
017	American Airlines	Infrastructure - Electrical infrastructure to recharge 120 GSE at DFW Airport	American signed an Agreed Order (AO) with TNRCC to achieve a certain level of reductions. American did not provide an assurance to the TNRCC that the GSE to be powered by the infrastructure is not part of their obligation in their AO commitment.
018	American Airlines	Demonstration Project - 2 fuel cells to recharge 65+ GSE at their cargo terminal at DFW airport.	This project has the same issues as 017 above. In addition, the project is not limited to a few (1-5) vehicles and appears to be full implementation of a technology.
019	Emission Reduction Technology Corp.	Demonstration Project - Develop a retrofit kit.	This project was a request for funding to develop a retrofit device. The initial development of new technology is not eligible for funding under this program.

Appendix 5

Emissions Reduction Incentive Grants
FY 2002 - 2nd Round
Project Selection Recommendations

App No.	Applicant	Area	Project Type	Incentive Amount	Est. NOx Reduction (tons/yr.)	Est. NOx Reduction (total tons)	Project Life (years)	Estimated Cost-Effectiveness
036	Port of Houston Authority	HGA	7 New Purchases Yard Trucks (5) Empty Container Lifts (2)	$21,500.00	6.58	65.82	10	$383.05
001	Triad Sand Corporation	HGA	2 New Purchases 330 CL Excavators	$15,906.68	1.47	7.34	5	$2,367.46
017	Dallas Area Rapid Transit	DFW	360 add-on of ERG system to DART buses	$7,591,680.00	236.56	1869.98	7 and 9	$4,583.25
029	Dustrol, Inc.	DFW	2 Repowers Repaving Equipment	$110,000.00	3.04	15.19	5	$7,900.99
004	Bean Construction Company	HGA	1 New Purchase 330CL Excavator	$16,616.93	0.61	3.05	5	$5,957.94
030	Port of Houston Authority - Fuel	HGA	1 Use of Qualifying Fuel PuriNOx	$76,352.47	7.81	7.81	1	$9,777.08
028	Dallas/Ft. Worth International Airport Board	DFW	3 New Purchase 1-210 NPR CNG Sweeper 2-600 CNG Sweepers	$108,500.00	1.57	14.68	7 and 10	$8,591.95
034	C. E. Barker, Inc.	HGA	3 New Purchases 330CL excavators	$61,436.04	1.75	8.73	5	$7,665.62
005	Site Concrete, Inc.	DFW	16 New Purchases 140H motor graders (6) 25C Excavators (8) 330CL Excavators (2)	$435,896.00	9.66	48.29	5	$9,852.99
026	Universal Maritime Services Corporation	HGA	1 Use of Qualifying Fuel PuriNOx	$74,965.00	$6.92	$6.92	$1.00	$10,840.43
022	Holes Incorporated	HGA	1 Use of Qualifying Fuel PuriNOx	$39,764.71	3.65	3.65	1	$10,893.44
011	Allgood Construction Company, Inc.	HGA	2 New Purchases 330CL excavators	$67,822.00	1.72	8.58	5	$8,635.13
018	Rustin Transportation, LLP	HGA	1 Use of Qualifying Fuel PuriNOx	$227,051.58	18.80	18.80	1	$12,076.82
021	Contractor Technology, Inc.	HGA	1 Use of Qualifying Fuel PuriNOx	$65,528.00	5.82	5.82	1	$11,267.74
012	JTI Contractors, Inc.	HGA	1 New Purchase 330CL excavator	$33,911.00	0.86	4.29	5	$8.630.10
020	J.A.M. Distributing Company	HGA	1 Use of Qualifying Fuel PuriNOx	$56,091.18	4.70	4.70	1	$11,924.47

Emissions Reduction Incentive Grants
FY 2002 - 2nd Round
Project Selection Recommendations

App No.	Applicant	Area	Project Type	Incentive Amount	Est. NOx Reduction (tons/yr.)	Est. NOx Reduction (total tons)	Project Life (years)	Estimated Cost-Effectiveness
013	G. O. Weiss, Inc	HGA	1 New Purchase 330CL excavator	$33,911.00	0.52	4.12	8	$9,380.27
002	Williams Brothers Construction Company, Inc.	HGA	1 Use of Qualifying Fuel PuriNOx	$21,007.06	1.93	1.93	1	$10,883.56
019	Flexicore of Texas	HGA	1 Use of Qualifying Fuel PuriNOx	$10,165.00	0.93	0.93	1	$10,900.07
010	L. A. Utilities, Inc.	HGA	2 New Purchases 330CL excavators	$67,822.00	1.46	7.29	5	$10,157.23
006	Sprint Sand & Clay, L.P.	HGA	2 Leases 330CL Excavators	$33,233.86	1.22	3.66	3	$9,646.29
033	Jack B. Kelley, Inc.	HGA DFW	5 Retrofit Convert from diesel to C12 LNG	$150,305.00	2.57	12.83	5.00	$12,770.34
025	Garver Construction, LTD	HGA	1 New Purchase 330CL excavator	$33,733.00	0.50	3.53	7	$10,742.78
027	Mike Albert, Inc.	DFW	1 New Purchase 330CL excavator	$35,046.31	0.73	3.64	5	$10,511.71
009	Vicon Services, Inc.	HGA	2 New Purchases 325C excavator 330CL excavator	$55,744.00	0.97	5.80	6	$10,641.37
014	Pate & Pate, LLC	HGA	5 New Purchases 330CL excavators (4) 140H motor grader (1)	$158,176.97	2.91	14.53	5	$11,.889.39
015	Zachry Construction Corporation	DFW	5 New Purchases 3-140H CAT motor graders 2 - 330CL CAT Excavators	$156,099.00	2.20	15.39	7	$12,025.17
		HGA	1 New Purchase 1- 140H CAT motor grader	$47,684.00	0.52	3.61		
007	Rodman Equipment Services	DFW	6 Leases 140H motor graders (4) 330CL Excavators (2)	$212,590.00	3.77	18.82	5	$12,313.00
008	Mustang Cat Rental Store, Ltd.	HGA	10 New Purchases 330 CL Excavators (4) 325CL Excavators (6)	$121,574.00	2.21	11.06	5	$12,001.01
038	Renaissance Contractors Inc.	DFW	4 New Purchases 2- 330CL excavators 2- 325C excavators	$222,500.00	3.19	19.15	6	$12,871.50

Emissions Reduction Incentive Grants
FY 2002 - 2nd Round
Project Selection Recommendations

App No.	Applicant	Area	Project Type	Incentive Amount	Est. NOx Reduction (tons/yr.)	Est. NOx Reduction (total tons)	Project Life (years)	Estimated Cost-Effectiveness
042	J.M. Resources, Inc.	HGA	1 New Purchase 330CL excavator	$31,200.00	0.58	2.89	5	$11,786.61
040	Forman Equipment and Contracting Co., Inc.	HGA	2 New Purchases 325C excavator	$69,558.00	0.93	6.50	7	$12,017.76
041	KB Rentals & Services, LTD	HGA	2 New Purchases 330CL excavator	$92,140.00	1.16	8.10	7	$12,793.30
039	Brazoria County Conservation and Reclamation District #3	HGA	1 New Purchase 325CLF excavator	$34,800.00	0.31	3.14	10	$12,992.43
024	Dean Brothers Big Iron, LP	HGA	2 New Purchases 140H motor grader 330CL excavator	$69,056.75	1.18	5.88	5	$12,822.16
			Total Recommended for Funding	**$10,659,367.54**	**341.31**	**2246.45**		
Eligible Projects Not Recommended for Funding (due to funding limitations)								
016	Clean Airport Partnership, Inc.	DFW	Demonstration Project Convert gas/diesel cargo tractors to electric and rapid charge system	$292,711.00				
031	Houston Advanced Research Center	HGA	Demonstration Project Fuel Cell at Cruise Terminal	$1,278,962.00				
035	Texas Transportation Institute	DFW	Demonstration Project Dual Fuel (natural gas and #2 diesel) for Locomotive	$1,340,677.00				

Emissions Reduction Incentive Grants
FY 2002 - 2nd Round
Projects Determined to be Ineligible for Consideration

App No.	Applicant	Area	Project Type	Incentive Amount	Reason Not Eligible
003	Hi Tech Conversions, Inc.	HGA	20 Retrofits Buses to dual-fuel (LNG/Diesel) 22 Repowers Buses to dual-fuel (LNG/Diesel) 1 Refueling Infrastructure	$2,259,021.24	Retrofit Kits are not certified
037	Jimerson Underground, Inc.	HGA	2 New Purchases Linkbelt excavators	$30,000.00	Engines are not certified by EPA to Tier II standards (not 30% cleaner)
023	Dallas County Schools	DFW	200 Retrofits Buses with exhaust filters	$1,400,000.00	Engine itself is **not** 30% cleaner. Manufacturer of device has tampering approval from EPA, but can not claim 3.0 F.E.L.
032	City of Denton	DFW	24 Add-On Muffler and timing reduction 1 Refueling Infrastructure Tanks for EMD 1 Use of Qualified Fuel Maxima Environmental Maxima Diesel (EMD)	$113,305.00	No verification. Lack of substantial testing data. Retrofit device is not verified or 30% cleaner

Appendix 6

Texas Commission on Environmental Quality
Emissions Reduction Incentive Grants
Technologies Selected for Funding

Number	Type of Project	Technology Description
New Purchases		
1	Backhoe - Compressed Natural Gas (CNG)	GradAll XL3100 Backhoe, w/Cummins CNG engine
2	Street Sweeper - Compressed Natural Gas (CNG)	Tymco/Isuzu 210 NPR Street Sweeper, w/General Motors CNG engine
2	Street Sweeper - Compressed Natural Gas (CNG)	Tymco 600 Street Sweeper, w/Caterpillar CNG/Diesel engine
25	Motor Grader	Caterpillar 140H Motor Grader
44	Excavator	Caterpillar 330CL Excavator
24	Excavator	Caterpillar 325CL Excavator
5	Yard Trucks (for containers)	Capacity Yard Truck w/Cummins ISC 315 engine
2	Empty Container Lifts	Kalmer Empty Container Lift w/Cummins QSC 8.3 engine
Leases		
2	Excavator	Caterpillar 330CL Excavator
Repowers		
2	Replace engines (2) on fireboat	Caterpillar Engines, Model 3805-B, 1,200 hp
2	Replace engines on grinding and paving equipment	Cummins Engines, Model KTA19600, 600 hp, remanufactured to 1997-1998 standards
Retrofits & Add-on Equipment		
29	Convert trucks to dual fuel (Diesel + LNG)	Clean Air Partners, Caterpillar C-12 LNG Dual Fuel Kits
33	Add SCR/SNCR devices to excavators	Extegine Transport Systems, Advanced Diesel Emission Control (ADEC) System II (selective catalytic reduction (SCR) and selective non-catalytic reduction (SNCR) system)

Texas Commission on Environmental Quality
Emissions Reduction Incentive Grants
Technologies Selected for Funding

Number	Type of Project	Technology Description
360	Add Exhaust Gas Recirculation (EGR) system to transit buses	Engelhard DNOx® system with DPX-0059® filter
Refueling Infrastructure		
1	Mobile Liquified Natural Gas (LNG) Refueling Station	Chart Industries, trailer-mounted LNG fueling system
Qualifying Fuel		
7	Use of Emulsified Diesel	PuriNOx® by Lubrizol Corporation
1	Use of Ultra-Low Sulfer Diesel Fuel, in conjunction with project to install of DNOx® EGR system on transit buses	Manufacturer/supplier to be determined.
Demonstration Projects		
1	Install and test Auxiliary Power Unit (APU) idle reduction systems on 2 “switcher” locomotives	Auxiliary Power Unit (APU) with Kubota, Model **V2003**-TEBG diesel engine coupled to auxiliary generator

Appendix 7

RFP #02-R01
Air Pollutant Emission Reduction Technology
Demonstration and Certification Grant Opportunity
Proposals Recommended for Funding by the TCET

Entity	Title	Amount Requested
El Paso Electric	A Sustainable solution to the Air Pollution Problem Caused by Low Technology Brick Kilns	$225,000
Houston Advanced Research Center	Emissions Testing of Prototype Diesel/Electric Hybrid Commercial Pickup/Delivery Vehicles (PUDS) and Assessment of Potential Emission Reductions in the Houston-Galveston Non-Attainment Area from Widespread Use in Delivery Fleets	$164,419
Cummins West, Inc. dba Cleaire Advanced Emission Controls	Test of Alliance Advanced Emission Control System, employing integration of lean NOx and diesel oxidation catalysts	$150,000
Eastern Research Group	A Virtual Functionality Test for the EGR Systems of Light-Duty Gasoline Vehicles	$284,623
	Total	$824,042

RFP #02-R02
Assessment of Information Needs For Air Pollution Health Effects Research in Houston, Texas
Grant Opportunity
Proposals Recommended for Funding by the TCET

Entity	Title	Amount Requested
BRIDGES to Sustainability	Assessment of Information Needs for Air Pollution Health Effects Research in Houston, Texas.	$50,000

RFP #02-R03
Developing a Critical Assessment of Air Quality Technology Development Needs
Grant Opportunity
Proposals Recommended for Funding by the TCET

Entity	Title	Amount Requested
ENVIRON International Corporation	Developing a Critical Assessment of Air Quality Technology Development Needs.	$50,000